

**AMENDMENTS TO THE CLAIMS  
PURSUANT TO 37 CFR § 1.21**

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1. (Presently Amended) A device comprising i) a first microchannel and ii) a second microchannel, said first and second microchannels etched in a substrate so as to be intersecting, and iii) a meltable material disposed within a substrate said first microchannel and associated with iv) a heating element associated with said meltable material.
  2. (Canceled)
  3. (Original) The device of Claim 1, wherein said substrate is selected from the group consisting of glass and silicon.
  4. (Original) The device of Claim 1, wherein said meltable material comprises solder.
  5. (Original) The device of Claim 1, wherein said solder comprises a eutectic alloy of tin and lead.
  6. (Original) The device of Claim 5, wherein said alloy comprises 60:40 Sn:Pb.
  7. (Original) The device of Claim 4, wherein said solder comprises 40:60 Sn:Pb.
  8. (Original) The device of Claim 1, wherein said meltable material is selected from a group consisting of plastic, polymer and wax.
  9. (Original) The device of Claim 1, further comprising a diaphragm positioned such that it is capable of touching said meltable material when extended.

10. (Presently Amended) A method, comprising:
- a) providing a device comprising i) a first microchannel and ii) a second microchannel, said first and second microchannels etched in a substrate so as to be intersecting, iii) a meltable material disposed within ~~a substrate~~ said first microchannel, said meltable material associated with a heating element; and
  - b) heating said meltable material with said heating element such that said meltable material at least partially liquifies to create a liquified material and such that said substrate is not damaged, wherein said liquified material moves into said second microchannel.
11. (Original) The method of Claim 10, further comprising c) allowing said meltable material to cool.
12. (Canceled)
13. (Original) The method of Claim 10, wherein said substrate is selected from the group consisting of silicon and glass.
14. (Original) The method of Claim 10, wherein said meltable material comprises solder.
15. (Original) The method of Claim 14, wherein said solder comprises a eutectic alloy of tin and lead.
16. (Original) The method of Claim 15, wherein said alloy comprises 40:60 Sn:Pb.
17. (Original) The method of Claim 10, wherein said meltable material is selected from a group consisting of plastic, polymer and wax.
- 18 - 21. (Canceled)